by HARMAN

JBL® STUDIO 1 SERIES

loudspeakers

USER GUIDE

THANK YOU FOR CHOOSING THIS JBL® PRODUCT

For more than 60 years, JBL® engineers have been involved in every aspect of music and film recording and reproduction, from live performances to the recordings you play on the go and in your home, car or office.

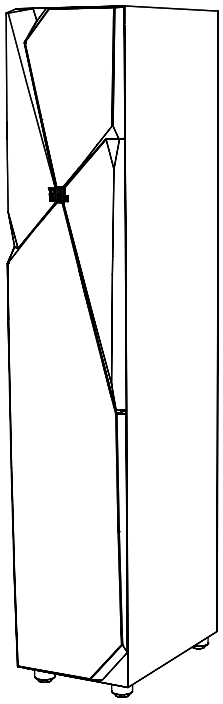
We're confident that the JBL system you have chosen will provide every note of enjoyment you expect – and that when you think about purchasing additional audio equipment for your home, car or office, you will once again choose JBL products.

Please take a moment to register your new product on our Web site, www.jbl.com. Registering enables us to keep you posted on our latest advancements and helps us to understand our customers and build products that meet their needs.

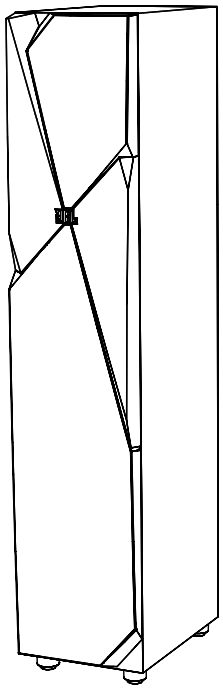
INCLUDED ITEMS

Each box contains one or two loudspeakers, depending on the model, as indicated below.

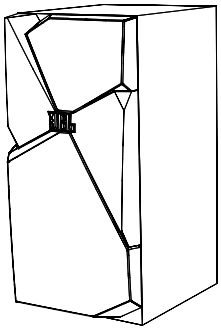
Studio 190
One Studio 190 speaker



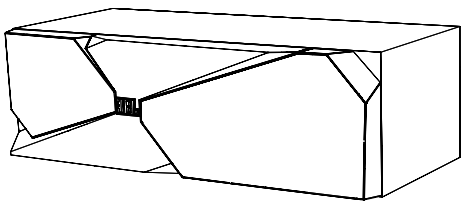
Studio 180
One Studio 180 speaker



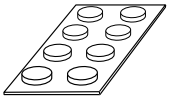
Studio 130
Two Studio 130 speakers



Studio 120c
One Studio 120c speaker



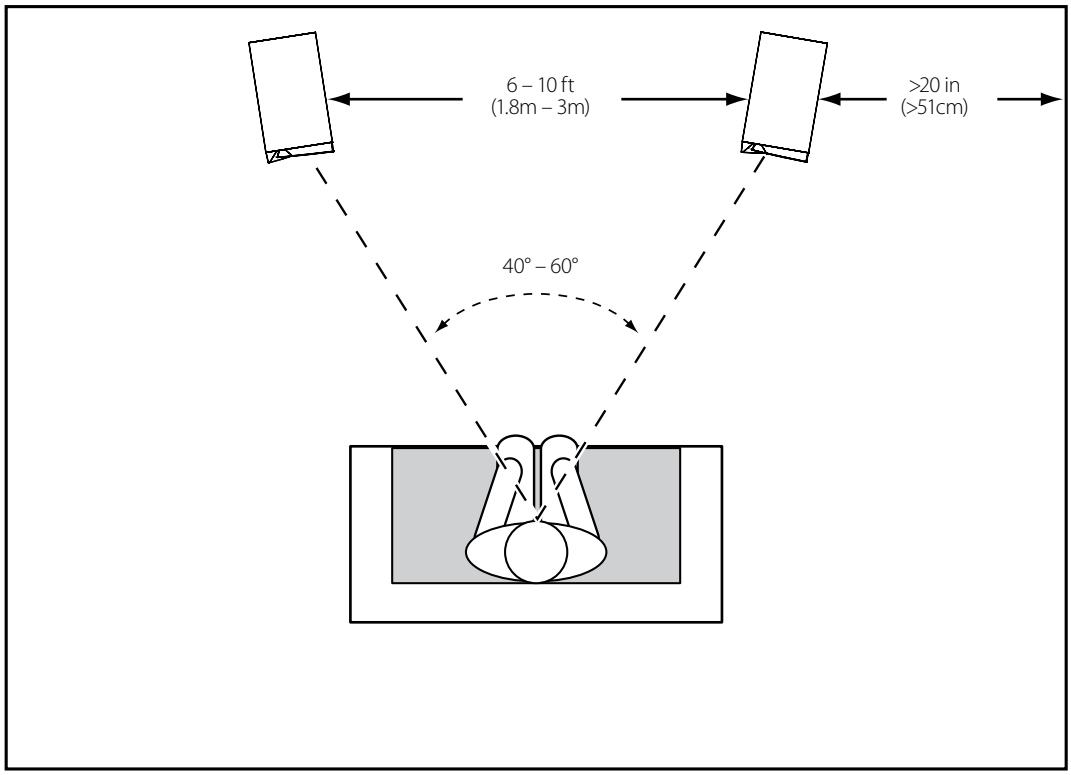
Card with adhesive rubber feet
(Studio 130 – two cards,
Studio 120c – only one card)



PLACEMENT

STUDIO 190/STUDIO 180/STUDIO 130 – LEFT AND RIGHT CHANNELS

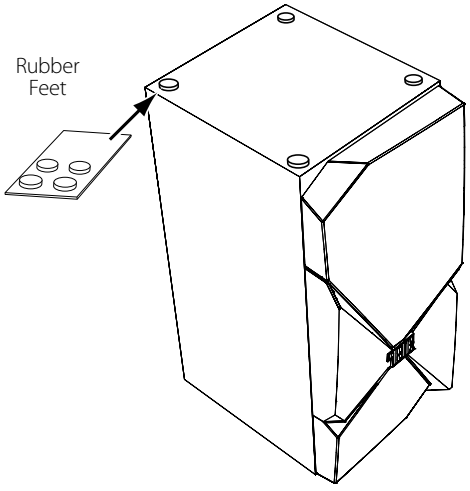
For best results, place the speakers 6 – 10 feet (1.8m – 3m) apart. Angling the speakers toward the listening position can improve the stereo imaging. The speakers will produce the most accurate stereo soundstage when the angle between the listener and the speakers is between 40 and 60 degrees.



Generally, bass output will increase as the speaker is moved closer to a wall or corner.

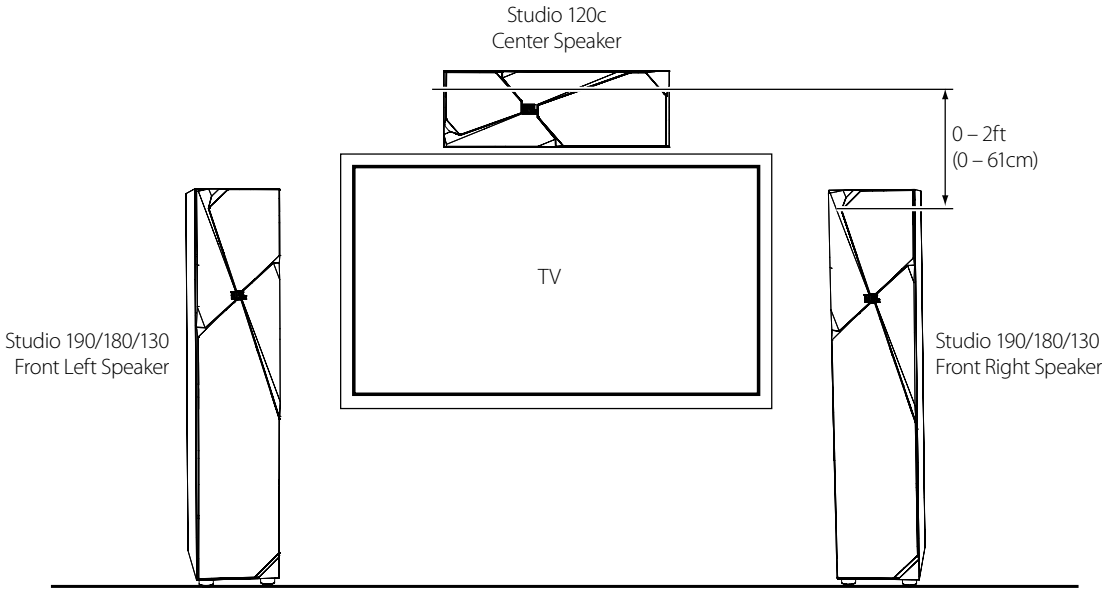
For best performance, we recommend that you place the speakers at least 20 inches (51cm) away from the side walls.

- Position Studio 130 shelf speakers so that their tweeters are approximately at ear level. Peel the adhesive rubber feet from the card and apply them to the bottoms of the speakers.

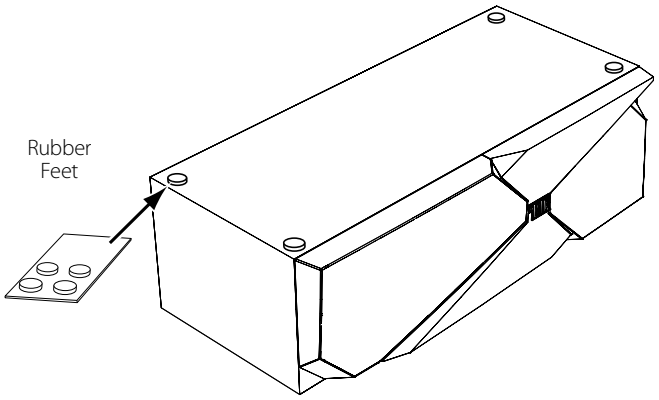


STUDIO 120c

You should place the center speaker directly above or below the center of your TV screen. The speaker's center should be no more than 2 feet (61cm) above or below the tweeters of the front left and front right speakers. If your TV set is deep enough, you can set the center speaker on top of the TV, with the speaker's front edge even with the TV's front edge.

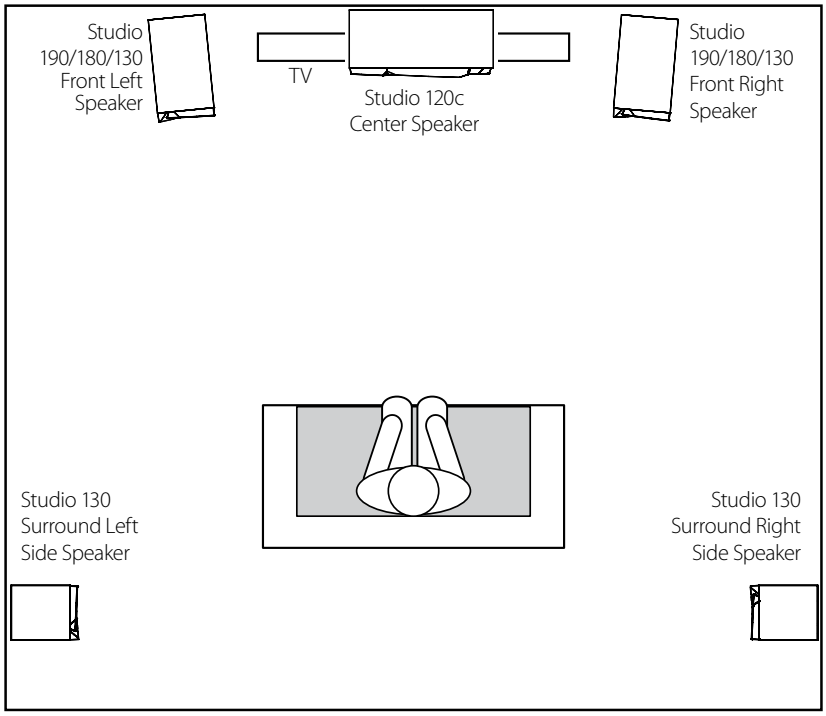


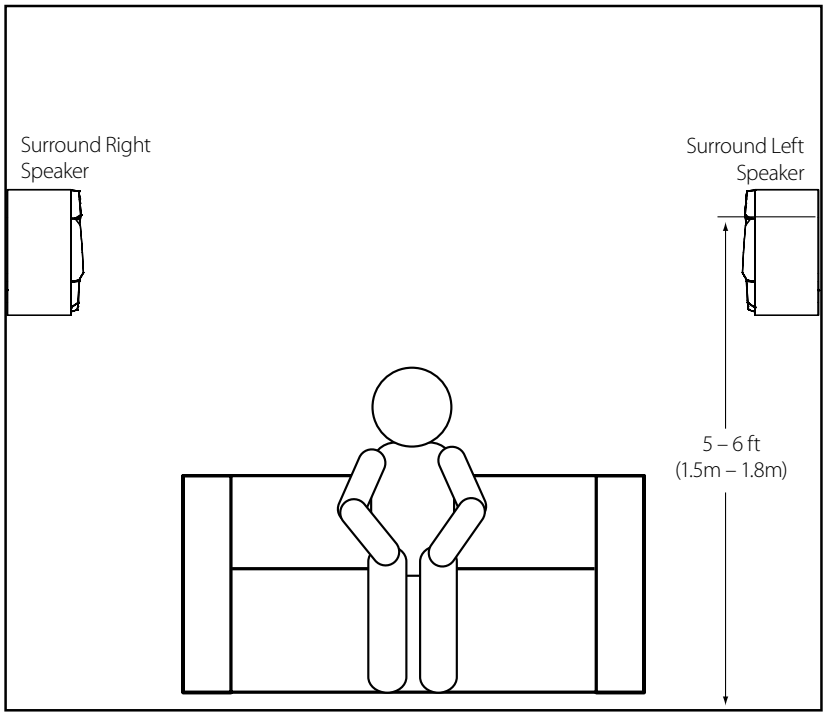
- Peel the adhesive rubber feet from the card and apply them to the bottom of the speaker.



STUDIO 130 – SURROUND CHANNELS (5.1-CHANNEL SYSTEM)

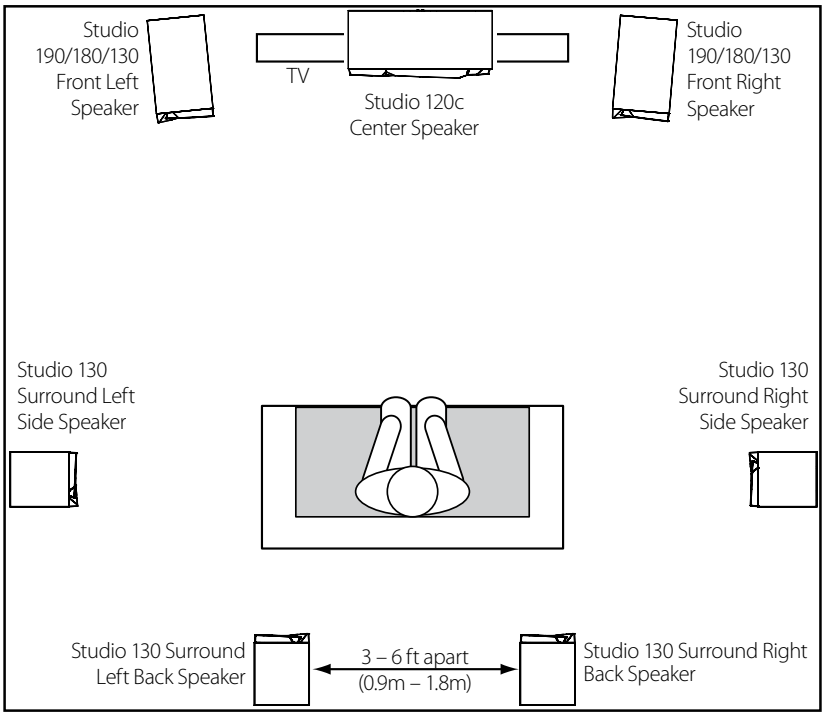
When you use Studio 130 speakers as surround-channel speakers in a 5.1-channel system, place them slightly behind the listening position, facing each other. Ideally, they should be 5 – 6 feet (1.5m – 1.8m) above the floor. An alternate location would be on a wall behind the listening position, facing forward. The surround speakers should not call attention to themselves while they're playing. Experiment with their placement until you hear a diffuse, ambient sound accompanying the sounds that you hear from the front left, front right and center speakers.





STUDIO 130 – SURROUND CHANNELS (7.1-CHANNEL SYSTEM)

When you use Studio 130 speakers as surround-channel speakers in a 7.1-channel system, place the surround side speakers directly to the sides of the listening position, at least 5 – 6 feet (1.5m – 1.8m) above the floor. Place the surround back speakers on the wall behind the listening position, also at least 5 – 6 feet (1.5m – 1.8m) above the floor and 3 – 6 feet (0.9m – 1.8m) apart.


Studio 190/180/130 Front Left Speaker
TV
Studio 120c Center Speaker
Studio 190/180/130 Front Right Speaker
Studio 130 Surround Left Side Speaker
Studio 130 Surround Right Side Speaker
Studio 130 Surround Left Back Speaker
3 – 6 ft apart (0.9m – 1.8m)
Studio 130 Surround Right Back Speaker

CONNECTIONS

CAUTION: Make sure that all of the system's electrical components are turned OFF (and preferably unplugged from their AC outlets) before making any connections.

Speakers and amplifiers have corresponding positive and negative ("+" and "–") connection terminals. All Studio 1 series speakers have connection terminals that are marked "+" and "–" on the terminal-cup assembly. Additionally, the "+" terminals have red markings, while the "–" terminals have black markings.

To ensure proper polarity, connect each "+" terminal on the back of the amplifier or receiver to the respective "+" (red) terminal on each speaker. Connect the "–" terminals in a similar way. Do not reverse polarities (i.e., "+" to "–" or "–" to "+") when making connections. Doing so will cause poor stereo imaging and diminished bass performance.

IMPORTANT: Make sure the (+) and (–) wires or connectors do not touch each other or the other terminal. Touching wires can cause a short circuit that can damage your receiver or amplifier.

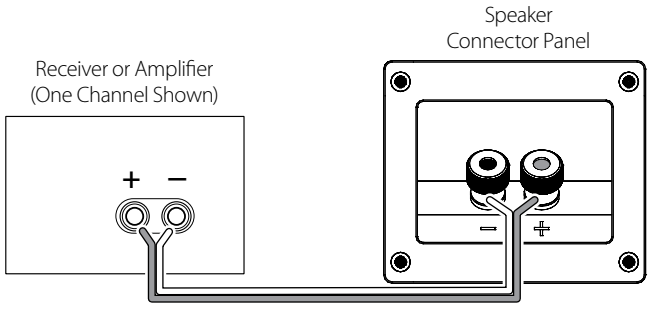
BASIC SINGLE-WIRE CONNECTION

Connect the amplifier to each speaker as shown in the illustration below.

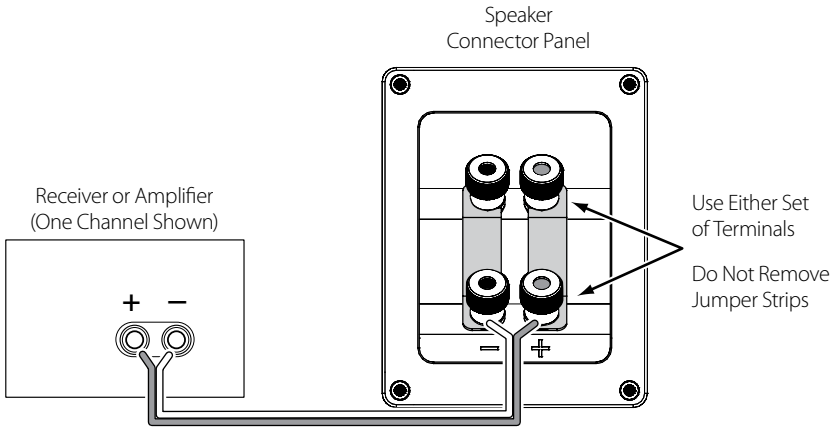
For the Studio 190 and Studio 180 speakers, you can use either set of terminals on the connector panel.

IMPORTANT: Do not remove the metal jumpers from between the two sets of terminals when connecting the speaker wires.

Studio 130, Studio 120c

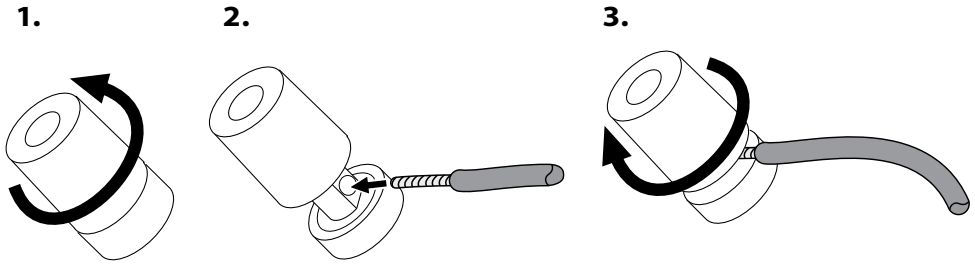


Studio 190, Studio 180

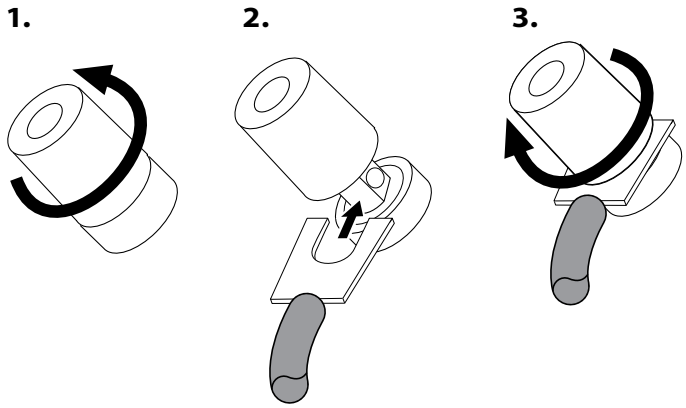


The Studio 1 series speakers' gold-plated speaker terminals can accept a variety of wire connector types: bare wire, pin connectors, spade connectors and banana connectors.

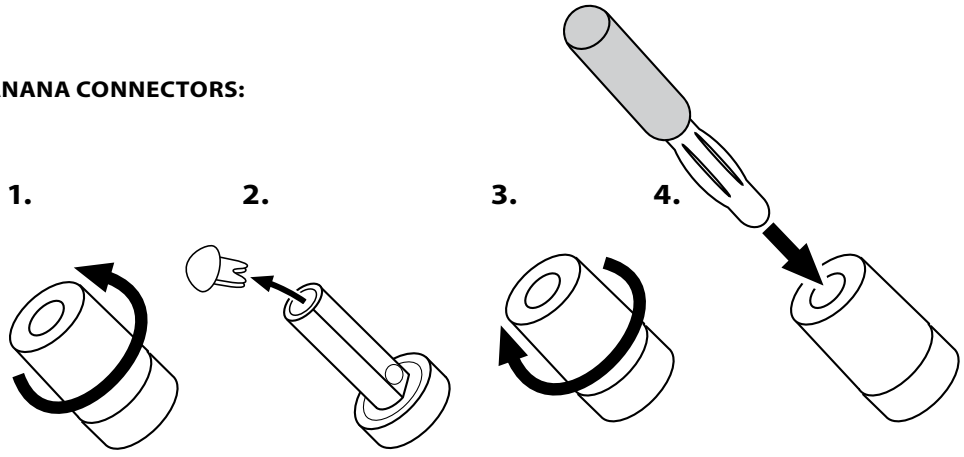
USING BARE WIRE OR PIN CONNECTORS:



USING SPADE CONNECTORS:



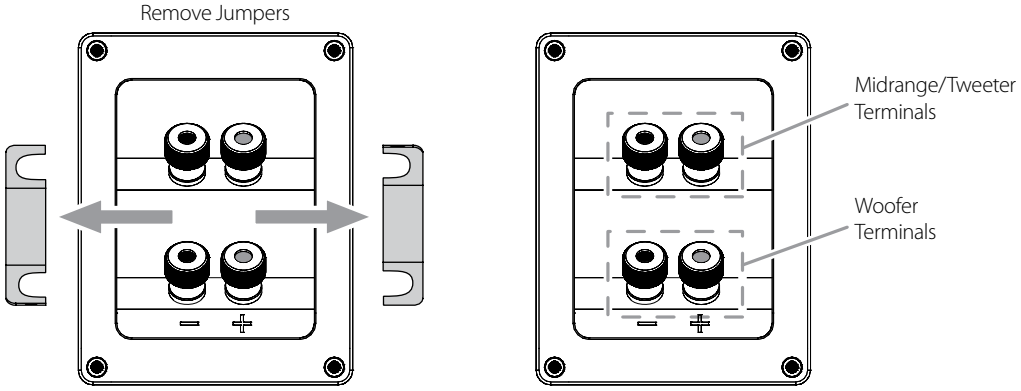
USING BANANA CONNECTORS:



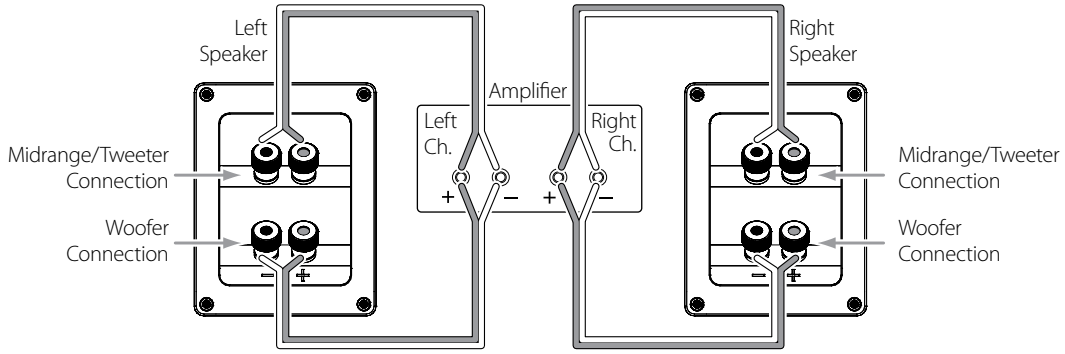
BI-WIRE CONNECTION (STUDIO 190/STUDIO 180)

The Studio 190 and Studio 180 connection assemblies have two sets of input terminals that are connected by metal jumper bars. The upper set of terminals is for the midrange/tweeter, and the lower set of terminals is for the woofer(s). This arrangement allows you to bi-wire the speakers using a single stereo amplifier or using two stereo amplifiers. Bi-wiring can offer sonic advantages and more flexibility in power-amplifier selection over a conventional single-wire connection.

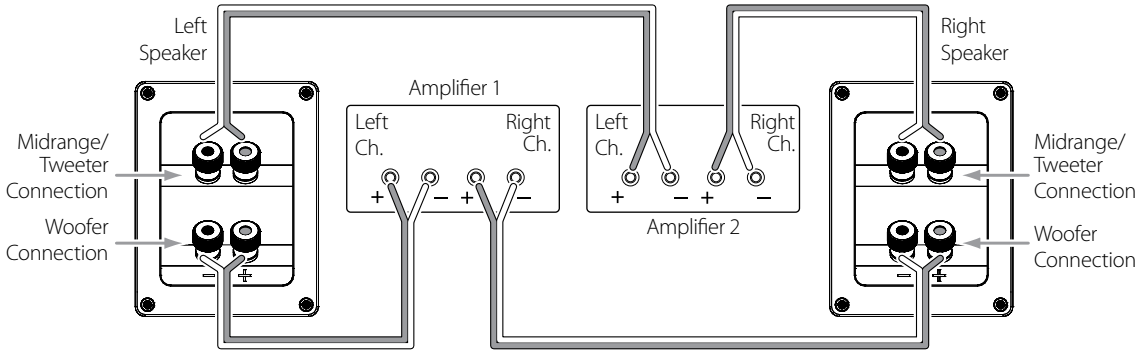
Before bi-wiring the speakers, remove the jumper bars.



SINGLE-AMPLIFIER BI-WIRING



DUAL-AMPLIFIER BI-WIRING



For more information about various speaker-wire and connection options, contact your local JBL dealer.

CARING FOR YOUR SPEAKERS

- Wipe the cabinet with a clean, dry cloth to remove dust. Damp cloths may dull the cabinet's finish. Do not use volatile liquids such as benzene, paint thinner or alcohol on the cabinet.
- Do not spray insecticide near the cabinet.
- To remove dust from the grille fabric, use a vacuum cleaner set to low suction.
- Do not wash the grilles in water, as it may fade the color or make it uneven.
- If the surfaces of the woofer and midrange cones become dusty, you can carefully sweep them clean with a soft, dry calligraphy brush or paint brush. Do not use a damp cloth.
- NEVER touch anything to the tweeter dome.

SPECIFICATIONS

STUDIO 190 FLOORSTANDING SPEAKER

Speaker type:	Three-way dual-woofer, floorstanding
Low-frequency transducer:	Two 6-1/2" (165mm) PolyPlas™ cones, magnetically shielded
Midrange transducer:	4" (100mm) PolyPlas cone, magnetically shielded
High-frequency transducer:	1" CMMD® Lite dome, magnetically shielded, in a Bi-Radial® constant-directivity waveguide
Power handling:	100 watts (continuous); 400 watts (peak)
Frequency response:	40Hz – 22kHz
Nominal impedance:	8 ohms
Sensitivity (2.83V/1m):	90dB
Crossover frequencies:	800Hz, 3.2kHz, 6dB/octave
Enclosure type:	Ported, with midrange subenclosure
Connector type:	Dual gold-plated binding posts (bi-wire capable)
Dimensions (H x W x D):	44-1/8" x 7-7/8" x 14-3/4" (1121mm x 200mm x 375mm)
Weight:	48.8 lb (22.1kg)

STUDIO 180 FLOORSTANDING SPEAKER

Speaker type:	Three-way floorstanding
Low-frequency transducer:	6-1/2" (165mm) PolyPlas cone, magnetically shielded
Midrange transducer:	4" (100mm) PolyPlas cone, magnetically shielded
High-frequency transducer:	1" CMMD Lite dome, magnetically shielded, in a Bi-Radial constant-directivity waveguide
Power handling:	90 watts (continuous); 360 watts (peak)
Frequency response:	45Hz – 22kHz
Nominal impedance:	8 ohms
Sensitivity (2.83V/1m):	89dB
Crossover frequencies:	1.1kHz, 2.5kHz, 6dB/octave
Enclosure type:	Ported, with midrange subenclosure
Connector type:	Dual gold-plated binding posts (bi-wire capable)
Dimensions (H x W x D):	40" x 7-7/8" x 13-1/8" (1016mm x 200mm x 333mm)
Weight:	38.6 lb (17.5kg)

STUDIO 130 BOOKSHELF SPEAKER

Speaker type:	Two-way bookshelf
Low-frequency transducer:	4" (100mm) PolyPlas cone, magnetically shielded
High-frequency transducer:	1" CMMD Lite dome, magnetically shielded, in a Bi-Radial constant-directivity waveguide
Power handling:	60 watts (continuous); 240 watts (peak)
Frequency response:	60Hz – 22kHz
Nominal impedance:	8 ohms
Sensitivity (2.83V/1m):	87dB
Crossover frequencies:	3kHz, 12dB/octave
Enclosure type:	Ported
Connector type:	Gold-plated binding posts
Dimensions (H x W x D):	13-3/4" x 6-1/2" x 8-1/4" (349mm x 165mm x 210mm)
Weight:	10.9 lb (4.9kg)

STUDIO 120c CENTER-CHANNEL SPEAKER

Speaker type:	2-1/2-way dual center-channel
Low-frequency transducer:	Two 4" (100mm) PolyPlas cones, magnetically shielded
High-frequency transducer:	1" CMMD Lite dome, magnetically shielded, in a Bi-Radial constant-directivity waveguide
Power handling:	60 watts (continuous); 240 watts (peak)
Frequency response:	60Hz – 22kHz
Nominal impedance:	8 ohms
Sensitivity (2.83V/1m):	90dB
Crossover frequencies:	900Hz, 12dB/octave; 1.8kHz, 24dB/octave
Enclosure type:	Ported
Connector type:	Gold-plated binding posts
Dimensions (H x W x D):	6-1/2" x 21" x 9-7/8" (165mm x 533mm x 251mm)
Weight:	18.6 lb (8.4kg)

HARMAN Harman Consumer, Inc.
8500 Balboa Boulevard, Northridge, CA 91329 USA www.jbl.com

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Part No. 950-0308-001